Table S1. Serologically defined HLA class I cross-reactive groups (CREGs) based on the scheme proposed by Rodey[1].

CREG*	Antigen specificities included
1C	A1, 3, 9 (23, 24), 11, 29, 30, 31, 36, 80
10C	A10 (25, 26, 34, 66), 11, 28 (68, 69), 32, 33, 43, 74
2C	A2, 9 (23, 24), 28 (68, 69), B17 (57, 58)
5C	B5 (51, 52), 15 (62, 63, 75, 76, 77), 17 (57, 58), 18, 21 (49, 50), 35, 46, 53, 70 (71, 72), 73, 78
7C	B7, 8, 13, 22 (54, 55, 56), 27, 40 (60, 61), 41, 42, 47, 48, 59, 67, 81, 82
8C	B8, 14 (64, 65), 16 (38, 39), 18, 59, 67
12C	B12 (44, 45), 13, 21 (49, 50), 37, 40 (60, 61), 41, 47
Bw4	A23, 24, 25, 32, B13, 27, 37, 38, 44, 47, 49, 51, 52, 53, 57, 58, 59, 63, 77
Bw6	B7, 8, 18, 35, 39, 41, 42, 45, 46, 48, 50, 54, 55, 56, 60, 61, 62, 64, 65, 67, 71, 72, 73, 75, 76, 78, 81, 82

[1]The serologic cross-reactive groups (CREGs) were assigned for each donor and recipient based on the immunologic determinants (public epitopes) that are differentially shared among HLA class I gene products. All HLA-A and HLA-B proteins were assigned into 8 major CREGs and Bw4/Bw6 groups based on serologic cross-reactivity patterns or shared amino acid sequence polymorphisms. See reference 31.

Table S2. The example of the evaluation of CREG mismatches[1].

Examples	D/R status	HLA type	CREG present	CREG match status
Example 1	Donor1	HLA-A1, A2	1C, 2C	Match
	Recipient1	HLA-A3, 24	1C, 2C	
Example 2	Donor2	HLA-A1, -	1C, -	Mismatch in GVHD direction
	Recipient2	HLA-A1, A32	1C, 10C	
Example 3	Donor3	HLA-A1, A32	1C, 10C	Mismatch in rejection direction
	Recipient3	HLA-A1, -	1C, -	
Example 4	Donor3	HLA-A1, A32	1C, 10C	Mismatch in both directions
	Recipient3	HLA-A2, -	2C, -	

[1]Cases in which a CREG was present in both a recipient and donor phenotype were considered as Match (example 1), even though HLA typing was mismatched at the antigen level. Cases in which a CREG was present in a recipient phenotype but was missing in a donor (example 2) were considered a major mismatch in the GVHD direction; whereas a CREG present in a donor and missing in a recipient was considered a mismatch in the rejection direction (example 3). If there were CREGs missing in a recipient, but present in donor and vice versa, it was considered as a mismatch in both directions.